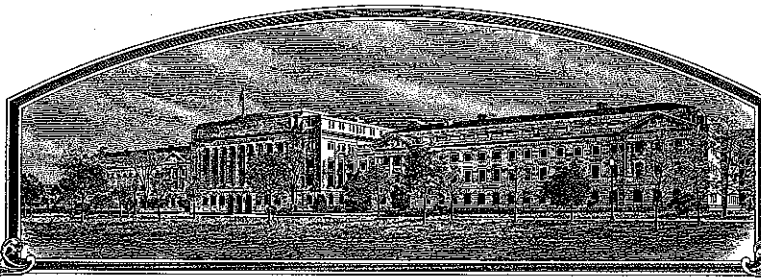


No.

200100210



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Progeny Advanced Genetics, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'Heritage'

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of August, in the year two thousand and six.*

Attest:

*Robert M. Zuber*

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*William J. Gorman*

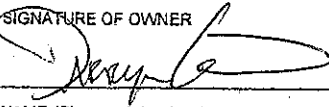
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICEAPPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

|  |  |  |   |   |  |
|--|--|--|---|---|--|
| 1. NAME OF OWNER<br><b>PROGENY ADVANCED GENETICS, INC.</b>   |  | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME<br><b>PX 313</b>       |   | 3. VARIETY NAME<br><b>HERITAGE</b>  |  |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)<br><b>1536 B MOFFETT STREET<br/>SALINAS CALIFORNIA 93905-3342</b>   |  | 5. TELEPHONE (include area code)<br><b>831-751-6030</b>              |   | FOR OFFICIAL USE ONLY<br><b>200100210</b>   |  |
| 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)<br><b>CORPORATION</b>   |  | 8. IF INCORPORATED, GIVE STATE OF INCORPORATION<br><b>CALIFORNIA</b> |   | 6. FAX (include area code)<br><b>831-751-6032</b>   |  |
| 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)<br><b>DARRYN GIBSON<br/>PRODUCT DEVELOPMENT MANAGER<br/>PROGENY ADVANCED GENETICS, INC<br/>1536 B MOFFETT STREET<br/>SALINAS CALIFORNIA 93905</b>  |  | 9. DATE OF INCORPORATION<br><b>12/26/94</b>                          |   | FILING DATE<br><b>June 7, 2001</b>  |  |
| 11. TELEPHONE (include area code)<br><b>831-751-6030</b>   |  | 12. FAX (include area code)<br><b>831-751-6032</b>                   |   | FILING AND EXAMINATION FEES:<br><b>\$ 2705 -</b><br>DATE <b>June 7, 2001</b><br>CERTIFICATION FEE:<br><b>\$ 768 -</b><br>DATE <b>May 23, 2000</b> |  |
| 13. E-MAIL<br><b>dgibson@redshift.com</b>  |  | 14. CROP KIND (Common Name)<br><b>LETTUCE</b>                        |   |   |  |
| 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)<br>a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety<br>b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness<br>c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety<br>d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional)<br>e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership<br>f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)<br>g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) |  |  | 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act.<br><input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no," go to item 22)  |   |  |
|  |  |  | 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?<br>IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED   |   |  |
|  |  |  | 21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS?<br>IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED  |   |  |
|  |  |  | (If additional explanation is necessary, please use the space indicated on the reverse.)  |   |  |
| 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?<br><input checked="" type="checkbox"/> YES <b>JUNE 12, 2000</b> <input type="checkbox"/> NO<br>IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)   |  |  | 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO<br>IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) |   |  |
| 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.<br>The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.<br>Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.  |  |  |   |   |  |
| SIGNATURE OF OWNER<br>   |  |  | SIGNATURE OF OWNER  |   |  |
| NAME (Please print or type)<br><b>DARRYN GIBSON</b>  |  |  | NAME (Please print or type)   |   |  |
| CAPACITY OR TITLE<br><b>PRODUCT DEVELOPMENT MANAGER</b>  |  | DATE<br><b>6/5/01</b>  |   | CAPACITY OR TITLE<br><b>1</b>   |  |

**Exhibit A****Details of the Development of the Variety Heritage**

Heritage is a romaine lettuce variety developed from a hand pollinated cross of Major Cos and Tall Guzmaine made in 1994 in the San Joaquin Valley. The F1 seed harvested was designated as Gamma # 040. Major Cos, a PIC type available from Gene Corp Seed Company and was selected as a source of size, type and vigorous growth habit during the winter plantings of the Salinas Valley. Tall Guzmaine a publicly available variety was the source of corky root resistance, weight and heat tolerance. The cross was made to produce a large, corky root resistant Romaine variety with improved size and weight for the early plantings in the Salinas Valley lettuce production region. Pedigree selection was the breeding method used in the development of this variety.

Approximately 40 plants of the F1 seed were planted in the research and development block of a San Joaquin Valley production field for seed increase in 1995. The block was rogued, eliminating the self-pollinating plants. The F2 seed was harvested in bulk in August 1995.

The F2 seed was grown and evaluated in research and development production plots in a San Joaquin valley production field in 1996. Individual plant selections were made for improved size, and smoother leaf type. The selections were allowed to self-pollinate, and the seed was harvested.

Seed from the F3 selections was trialed late in 1996 in Yuma Arizona, and in 1997 in the Salinas Valley of California. F3 seed from the performing line designated PX313 was then increased in our 1997 San Joaquin Valley research production block. Selections for large size, and smooth leaf type were made and the plants were grown to seed. The remainder of the block was intensely rogued for type, size and maturity, and bulk harvested for F4 trial seed.

The F4 seed was extensively trialed and evaluated in research and development plot trials during the 1998 growing season in the Salinas Valley of California, exhibiting resistance to the symptoms associated with Corky Root and Big Vein. The variety was phenotypically true to type demonstrating improved size, and weight, and a smooth leaf surface.

During the year 1999 and 2000 growing seasons, we continued to conduct large scale trials of the F4 seed in Yuma Arizona and the Salinas Valley of California. This variety was noted to exhibit the desired phenotypic traits, and named 'Heritage' in May of 2000.

The F4 seed was planted in 2000 in our San Joaquin Valley research production field, where it was selectively rogued for uniformity in size, type, color, and maturity. The F5 seed was harvested. Multiple trials and commercial plantings were conducted with the F5 Heritage in the late fall of 2000, and the early winter plantings of 2001 in the Salinas Valley, California. In all instances the variety was noted as uniform, stable and with out variants, expressing the desired phenotypic traits.

Heritage as evaluated in commercial trials and seed production, has been noted as uniform and stable with out variants for 2 generations.

Harvested material of the variety Heritage was first sold on June 12, 2000. At no point prior was any harvested material from this variety sold or offered for sale.



200100210

**Revised Exhibit B****Statement of Distinctness**

Heritage is a large Paris Island Cos type romaine lettuce that has demonstrated resistance to the symptoms associated with big vein and corky root. Heritage is an extremely vigorous romaine variety that performs during the late winter and early spring plantings in the Salinas valley and the late fall plantings in the Yuma Arizona growing region. During these periods Heritage produces a very large and uniform romaine lettuce for bulk or box product.

Heritage most closely resembles its parent variety Major Cos. When compared to this variety, Heritage is lighter in color with rating of 146 A, where as Major Cos is a darker 137 C. Heritage also produces a longer and more dense heart, and an overall taller and broader plant. In addition, Heritage demonstrates resistance to the symptoms associated with Big Vein and Corky Root, where as Major Cos does not. Additional distinctions exist between Heritage and Major Cos as described in their respective Exhibit C claims. The distinctions are as follows:

| <b>Attribute</b>                        | <b>Heritage</b>       | <b>Major Cos</b> |
|---|-----------------------|------------------|
| Cotyledon leaf undulation               | Flat                  | Medium           |
| Cotyledon leaf cupping                  | Uncupped              | Slight           |
| 4 <sup>th</sup> leaf reflexing          | None                  | Lateral margin   |
| Mature leaf indentation                 | Shallowly dentate     | Entire           |
| Blistering                              | Moderately blistering | Smooth           |
| Bolter leaf margin                      | Dentate               | Entire           |
| Bolter habit: lateral shoots above head | Absent                | present          |
| Seed color                              | White                 | Black            |

In comparison to the parent variety Tall Guzmaine, Heritage again exhibits distinctness. Heritage has a longer core length, a longer heart length, a larger core diameter, a taller plant and a broader frame than Tall Guzmaine. In addition, Heritage has smoother leaf surface, with moderate to slight blistering, while Tall Guzmaine has a heavily savoyed leaf surface.

When compared to the romaine variety Green Towers, Heritage is consistently taller, broader and has a longer core. Heritage is also resistant to Corky root.

These claims are supported statistically.

4

U. S. Department of Agriculture  
Agricultural Marketing Service  
Science and Technology Program  
OBJECTIVE DESCRIPTION OF VARIETY  
LETTUCE *Lactuca saliva*

Exhibit C

|  |                                 |
|--|---------------------------------|
| NAME OF APPLICANT (S)<br><b>PROGENY ADVANCED GENETICS, INC.</b>  | FOR OFFICIAL USE ONLY           |
| ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)<br><b>1536 B MOFFETT STREET<br/>SALINAS CALIFORNIA 93905</b> | PVPO NUMBER<br><b>200100210</b> |
|  | VARIETY NAME                    |
|  | EXPERIMENTAL DESIGNATION        |

Place numbers in the boxes for the characters which best describe this variety. Measured data should be the mean of an appropriate number (at least 10) of spaced plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

|  |  |
|--|--|
| The location of the test area is:<br><b>SALINAS VALLEY, CALIFORNIA</b> | Color System Used:<br><b>ROYAL HORTICULTURAL SOCIETY</b> |
|--|--|

1. PLANT TYPE: (See list of suggested check varieties page 4.)

**04**

01-Cutting/Leaf  
02-Butterhead  
03-Bibb  
04-Cos or Romaine

05-Great Lakes Group  
06-Vanguard Group  
07-Imperial Group  
08-Eastern (Ithaca) Group

09-Stem  
10-Latin  
11-OTHER

2. SEED:

**1**

COLOR  
1-White (Silver Gray)  
2-Black (Gray Brown)  
3-Brown (Amber)

**1**

LIGHT DORMANCY  
1-Light Required  
2-Light Not Required

**1**

HEAT DORMANCY  
1-Susceptible  
2-Not Susceptible

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day old seedling grown under optimal conditions.

**20**

SHAPE OF COTYLEDONS:

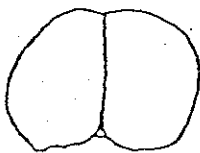
1-Broad

2-Intermediate

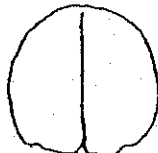
3-Spatulate

**4**

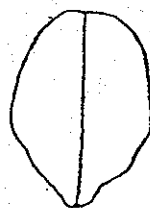
SHAPE OF FOURTH LEAF:



1



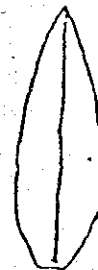
2



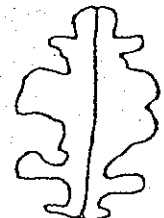
3



4



5



6

**20**

LENGTH/WIDTH INDEX OF FOURTH LEAF: LW x 10

**1**

APICAL MARGIN:

1-Entire

4-Moderately Dentate

7-Lobed

**4**

BASAL MARGIN:

2-Crenate/Gnawed  
3-Finely Dentate

5-Coarsely Dentate  
6-Incised

8-OTHER (specify)

**1**

UNDULATION:

1-Flat

2-Slight

3-Medium

4-Marked

**4**

GREEN COLOR:

1-Yellow Green  
2-Light Green

3-Medium Green  
4-Dark Green

5-Blue Green  
6-Silver Green

7-Gray Green

ANTHOCYANIN:

**1**

DISTRIBUTION:

1-Absent  
2-Margin Only

3-Spotted  
4-Throughout

5-OTHER (specify)

**1**

CONCENTRATION:

1-Light

2-Moderate

3-Intense

**1**

ROLLING:

1-Absent

2-Present

**1**

CUPPING:

1-Uncupped

2-Slight

3-Markedly

**1**

REFLEXING:

1-None

2-Apical Margin

3-Lateral Margins

5

## 4. MATURE LEAVES (observe harvest-mature outer leaves):

NOTE: Provide color photo of harvest-mature leaves which accurately shows color and margin characteristics.

## MARGIN:

|                                       |  |                                      |                                    |                            |
|---------------------------------------|--|--------------------------------------|------------------------------------|----------------------------|
| <input type="checkbox"/> 1            | INCISION DEPTH:<br>(deepest penetration of the margin) | 1-Absent/Shallow (Dark Green Boston) | 2-Moderate (Vanguard)              | 3-Deep (Great Lakes 659)   |
| <input type="checkbox"/> 2            | INDENTATION:<br>(finest divisions of the margin)       | 1-Entire (Dark Green Boston)         | 3-Deeply Dentate (Great Lakes 659) | 5-OTHER (specify)          |
|                                       |  | 2-Shallowly Dentate (Great Lakes 65) | 4-Crenate (Vanguard)               |                            |
| <input type="checkbox"/> 1            | UNDULATION OF THE<br>APICAL MARGIN:                    | 1-Absent/Slight (Dark Green Boston)  | 2-Moderate (Vanguard)              | 3-Strong (Great Lakes 659) |
| <input type="checkbox"/> 3            | GREEN COLOR:   | 1-Very Light Green (Bibb)            | 3-Medium Green (Great Lakes)       | 5-Very Dark Green          |
|                                       |  | 2-Light Green (Minetto)              | 4-Dark Green (Vanguard)            | 6-OTHER                    |
| ANTHOCYANIN (grown at or below 10 C): |  |                                      |                                    |                            |
| <input type="checkbox"/> 1            | DISTRIBUTION:  | 1-Absent                             | 3-Spotted (Calif. Cream Butter)    | 5-OTHER (specify)          |
|                                       |  | 2-Margin Only (Big Boston)           | 4-Throughout (Prize Head)          |                            |
| <input type="checkbox"/>              | CONCENTRATION:   | 1-Light (Iceberg)                    | 2-Moderate (Prize Head)            | 3-Intense (Ruby)           |
| <input type="checkbox"/> 3            | SIZE:  | 1-Small                              | 2-Medium                           | 3-Large                    |
| <input type="checkbox"/> 2            | GLOSSINESS:  | 1-Dull (Vanguard)                    | 2-Moderate (Salinas)               | 3-Glossy (Great Lakes)     |
| <input type="checkbox"/> 2            | BLISTERING:  | 1-Absent/Slight (Salinas)            | 2-Moderate (Vanguard)              | 3-Strong (Prize Head)      |
| <input type="checkbox"/> 2            | LEAF THICKNESS:  | 1-Thin                               | 2-Intermediate                     | 3-Thick                    |
| <input type="checkbox"/> 1            | TRICHOMES:   | 1-Absent (smooth)                    | 2-Present (spiny)                  |                            |

## 5. PLANT (at market stage. Choose a comparison variety appropriate for this type.):

|                                |  |   |  |                              |
|--------------------------------|--|---|--|------------------------------|
| <input type="checkbox"/> 3 8   | SPREAD OF FRAME LEAVES:                              | <input type="checkbox"/> 3 7 cm This Variety  | <input type="checkbox"/> 3 7 cm MAJOR COS  | (specify comparison variety) |
| <input type="checkbox"/> 3 8   | HEAD DIAMETER (market trimmed with single cap leaf): | <input type="checkbox"/> 3 8 cm This Variety  | <input type="checkbox"/> 3 7 cm MAJOR COS  | (specify comparison variety) |
| <input type="checkbox"/> 4     | HEAD SHAPE:  | 1-Flattened                                   | 3-Spherical                                | 5-Non-Heading                |
|                                |  | 2-Slightly Flattened                          | 4-Elongate                                 | 6-OTHER                      |
| <input type="checkbox"/> 3     | HEAD SIZE CLASS:                                     | 1-Small                                       | 2-Medium                                   | 3-Large                      |
| <input type="checkbox"/> 2 4   | HEAD COUNT PER CARTON                                |   |  |                              |
| <input type="checkbox"/> 6 1 1 | HEAD WEIGHT:   | <input type="checkbox"/> 5 9 3 g This Variety | <input type="checkbox"/> 5 9 3 g MAJOR COS | (specify comparison variety) |
| <input type="checkbox"/> 1     | HEAD FIRMNESS:                                       | 1-Loose                                       | 3-Firm                                     |                              |
|                                |  | 2-Moderate                                    | 4-Very Firm                                |                              |

## 6. BUTT (bottom of market-trimmed head):

|                            |         |                       |                     |  |
|----------------------------|---------|-----------------------|---------------------|--|
| <input type="checkbox"/> 3 | SHAPE:  | 1-Slightly Concave    | 2-Flat              | 3-Rounded                              |
| <input type="checkbox"/> 2 | MIDRIB: | 1-Flattened (Salinas) | 2-Moderately Raised | 3-Prominently Raised (Great Lakes 659) |

## 7. CORE (stem of market-trimmed head):

|                              |  |  |   |                              |
|------------------------------|--|--|---|------------------------------|
| <input type="checkbox"/> 4 0 | mm Diameter at base of head            |  |   |                              |
| <input type="checkbox"/> 9 5 | Ratio of head diameter/core diameter   |  |   |                              |
| <input type="checkbox"/> 6 5 | Core height from base of head to apex: | <input type="checkbox"/> 6 6 mm This Variety | <input type="checkbox"/> 6 6 mm MAJOR COS | (specify comparison variety) |

8. BOLTING (Give First Water Date MAY 11): NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

|                                |   |  |   |                              |
|--------------------------------|---|--|---|------------------------------|
| <input type="checkbox"/> 6 0   | Number of days from First Water Date to seed stalk emergence (summer conditions): | <input type="checkbox"/> 5 5 This Variety    | <input type="checkbox"/> 5 5 MAJOR COS    | (specify comparison variety) |
| <input type="checkbox"/> 3     | BOLTING CLASS:  | 1-Very Slow                                  | 3-Medium                                  | 5-Very Rapid                 |
|                                |   | 2-Slow                                       | 4-Rapid                                   |                              |
| <input type="checkbox"/> 1 0 1 | Height of mature seed stalk:  | <input type="checkbox"/> 9 3 cm This Variety | <input type="checkbox"/> 9 3 cm MAJOR COS | (specify comparison variety) |

4 0

Spread of Bolter Plant (at widest point):

cm. This Variety

3 4

cm

MAJOR COS

(specify comparison variety)

1

BOLTER LEAVES:

1-Straight

2-Curved

2

MARGIN:

1-Entire

2-Dentate

2

COLOR:

1-Light Green

2-Medium Green

3-Dark Green

BOLTER HABIT:

2

TERMINAL  
INFLORESCENCE:

1-Absent

2-Present

1

LATERAL SHOOTS:  
(above head)

1-Absent

2-Present

1

BASAL SIDE SHOOTS: 1-Absent

2-Present

## 9. MATURITY (earliness of harvest-mature head formation):

NOTE: Complete this section for at least one season.

| SEASON | Applic. 1/ # of days | Check 1/ # of days | CHECK VARIETY 2/ |
|--------|----------------------|--------------------|------------------|
| Spring | 6 5                  | 6 6                | MAJOR COS        |
| Summer | 6 7                  | 6 9                | MAJOR COS        |
| Fall   |                      |                    |                  |
| Winter |                      |                    |                  |

Give planting date(s), and location(s):

Spring

APRIL 1, SALINAS VALLEY

Summer

JUNE 20, COASTAL SALINAS VALLEY

Fall

OCTOBER 25, YUMA ARIZONA

Winter

JANUARY 15, SALINAS VALLEY

1/ First water date to harvest.

2/ Fill in check variety name on the appropriate line.

## 10. ADAPTATION:

PRIMARY REGIONS OF ADAPTION (tested and proven adapted):

(0-Not tested

1-Not Adapted

2-Adapted)

2

Southwest (Calif., Ariz. desert)

2

West Coast

Northeast

Northcentral

Southeast

OTHER

SEASON:

2

Spring (area SALINAS VALLEY)

2

Fall (area YUMA ARIZONA)

2

Summer (area COASTAL SALINAS VALLEY)

2

Winter (area SALINAS VALLEY)

0

GREENHOUSE:

0-Not tested

1-Not Adapted

2-Adapted

3

SOIL TYPE:

1-Mineral

2-Organic

3-Both



## 11. DISEASES AND STRESS REACTIONS (0=Not tested; 1=Susceptible; 2=Intermediate; 3=Resistant; 4=Highly resistant; 5=Tolerant):

VIRUS

- ☒ 3 Big Vein  
☒ 1 Lettuce Mosaic  
☒ 0 Cucumber Mosaic  
☒ 0 Broad Bean Wilt  
☒ 0 Turnip Mosaic  
☒ 0 Beet Western Yellows  
☒ 0 Lett. Infectious Yellows  
☒ 0 Other Virus \_\_\_\_\_

INSECTS

- ☒ 0 Cabbage Loopers  
☒ 1 Root Aphids  
☒ 0 Green Peach Aphid  
☐ Other Insect \_\_\_\_\_

FUNGAL/BACTERIAL

- ☒ 3 Corky Root Rot (Pythium Root Rot)  
☒ 1 Downy Mildew (Races \_\_\_\_\_)  
☒ 1 Powdery Mildew  
☒ 1 Sclerotinia Rot  
☒ 0 Bacterial Soft Rot (Pseudomonas spp. & others)  
☒ 0 Botrytis (Gray Mold)  
☐ OTHER \_\_\_\_\_

PHYSIOLOGICAL/STRESS

- ☒ 1 Tipburn  
☒ 1 Heat  
☒ 0 Drought  
☒ 0 Cold  
☒ 0 Salt  
☒ 0 Brown Rib (Rib Discoloration, Rib Blight)  
☐ OTHER \_\_\_\_\_

POST HARVEST

- ☒ 2 Pink Rib  
☒ 0 Russet Spotting  
☒ 0 Rusty Brown Discoloration  
☒ 2 Internal Rib Necrosis (Blackheart, Gray Rib, Gray Streak)  
☒ 0 Brown Stain

## 12. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

## 13. COMMENTS:

SUGGESTED CHECK VARIETIES

- TYPE  
 1) CUTTING/LEAF  
 2) BUTTERHEAD  
 3) BIBB  
 4) COS, OR ROMAINE  
 5) GREAT LAKES GROUP  
 6) VANGUARD GROUP  
 7) IMPERIAL GROUP  
 8) EASTERN GROUP  
 9) STEAM

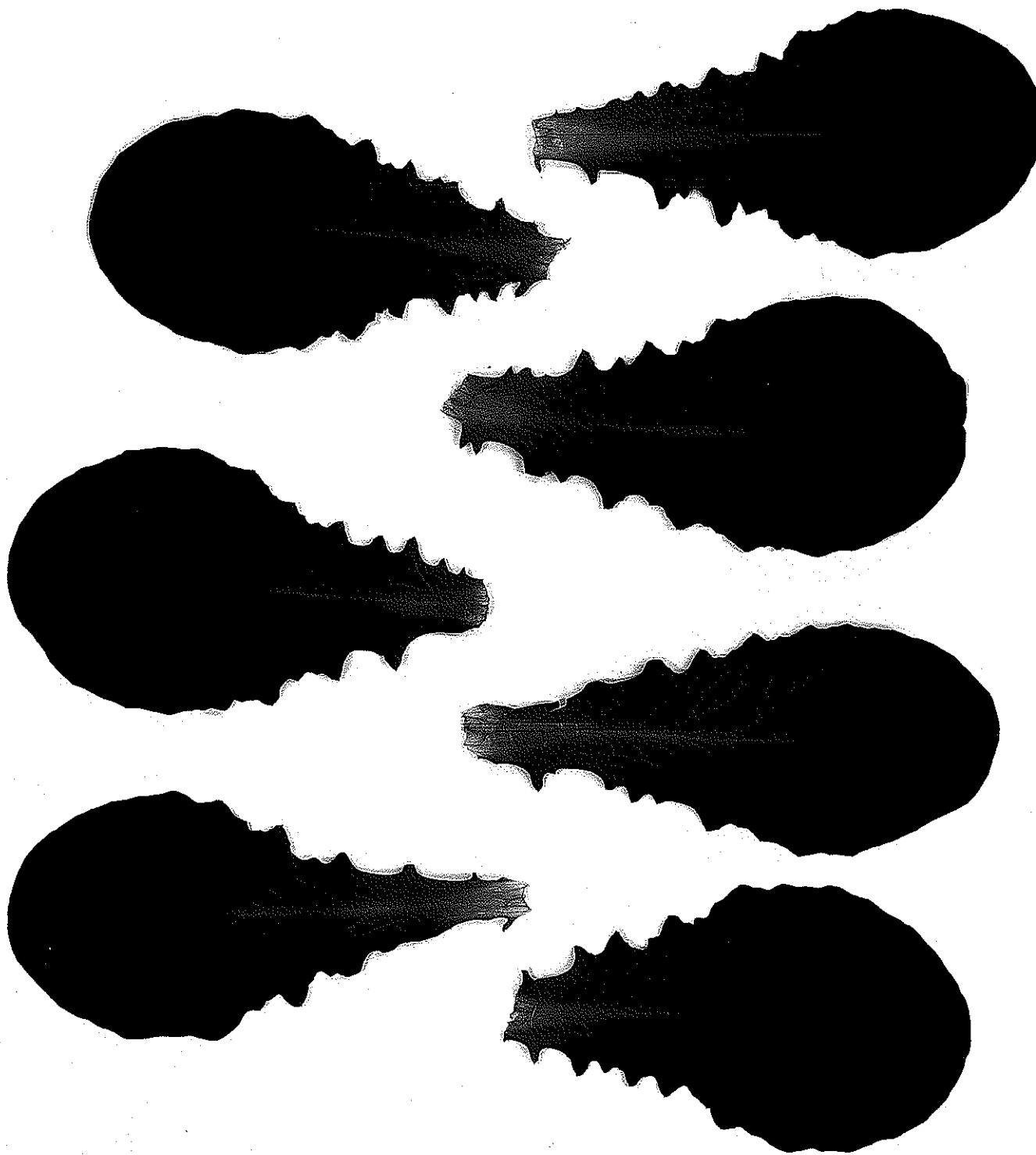
- CHECK VARIETY  
 SALAD BOWL  
 DARK GREEN BOSTON  
 BIBB  
 PARRIS ISLAND  
 GREAT LAKES 659-700  
 VANGUARD  
 VIVA  
 ITHACA  
 CELTIC



PROGENY

advanced genetics®

200100210





**Exhibit D****Additional Description of the Variety**

Heritage is a Parris Island Cos-type romaine lettuce that demonstrates resistance to the symptoms associated with both corky root and big vein. This variety produces excellent size and weight, and has performed exceptionally well in shelf life studies conducted by a major salad plant. Heritage is slotted for winter plantings in the Salinas Valley, and mid-winter plantings in Yuma, Arizona where big vein is a problem.

Trial map #: SV000094  
 Wet Date: 4/22/00  
 Date evald: 6/23/00  
 Location: Green Field  
 Grower: Bassetti  
 Days to Maturity: 64  
 65  
 Maturity Date: 6/25/00  
 1 GreenTowers  
 2 Heritage  
 12  
 4  
 Intellectual Property Trial Data  
 Comparison of Head Characteristics  
 Ranch:  
 Lot:

| Sample # | Core length (cm) |             | Heart Length (cm) |             | Core diam. (cm) |            | Head length (cm) |             | Head length: Core Length |             | Frame diam (cm) |             | Head wt. (g) |            |
|----------|------------------|-------------|-------------------|-------------|-----------------|------------|------------------|-------------|--------------------------|-------------|-----------------|-------------|--------------|------------|
|          | GreenTowers      | Heritage    | GreenTowers       | Heritage    | GreenTowers     | Heritage   | GreenTowers      | Heritage    | GreenTowers              | Heritage    | GreenTowers     | Heritage    | GreenTowers  | Heritage   |
| 1        | 5.3              | 5.2         | 21                | 22          | 4.0             | 4.5        | 26.0             | 26.0        | 4.9                      | 5.0         | 32              | 36          | 793          | 796        |
| 2        | 4.5              | 5.6         | 22                | 22          | 3.8             | 4.0        | 26.0             | 25.0        | 5.8                      | 4.5         | 34              | 35          | 713          | 700        |
| 3        | 5.6              | 6.0         | 23                | 21          | 3.5             | 4.3        | 28.0             | 26.0        | 5.0                      | 4.3         | 33              | 39          | 732          | 617        |
| 4        | 7.7              | 6.7         | 24                | 23          | 4.0             | 4.3        | 29.0             | 30.0        | 3.8                      | 4.5         | 32              | 37          | 685          | 789        |
| 5        | 7.5              | 5.7         | 25                | 22          | 4.3             | 4.5        | 29.0             | 29.0        | 3.9                      | 5.1         | 33              | 41          | 638          | 527        |
| 6        | 7.0              | 8.0         | 25                | 23          | 3.5             | 4.5        | 29.0             | 30.0        | 4.1                      | 3.8         | 32              | 38          | 704          | 690        |
| 7        | 7.2              | 4.5         | 21                | 20          | 3.8             | 4.5        | 24.0             | 27.0        | 3.3                      | 6.0         | 35              | 38          | 635          | 602        |
| 8        | 5.8              | 5.2         | 21                | 21          | 4.3             | 4.3        | 25.0             | 27.0        | 4.3                      | 5.2         | 36              | 37          | 888          | 530        |
| 9        | 4.5              | 6.9         | 20                | 22          | 4.4             | 4.4        | 24.0             | 30.0        | 5.3                      | 4.3         | 33              | 38          | 796          | 729        |
| 10       | 4.8              | 6.8         | 23                | 21          | 3.2             | 4.0        | 27.0             | 28.0        | 5.6                      | 4.1         | 32              | 39          | 654          | 580        |
| 11       | 4.5              | 8.3         | 18                | 24          | 4.2             | 3.8        | 23.0             | 31.0        | 5.1                      | 3.7         | 34              | 39          | 805          | 517        |
| 12       | 4.7              | 6.0         | 21                | 22          | 4.3             | 3.6        | 26.0             | 28.0        | 5.5                      | 4.7         | 33              | 36          | 488          | 801        |
| 13       | 5.4              | 7.7         | 21                | 23          | 4.0             | 4.4        | 25.0             | 30.0        | 4.6                      | 3.9         | 33              | 36          | 509          | 775        |
| 14       | 8.2              | 7.6         | 26                | 23          | 4.2             | 4.3        | 29.0             | 30.0        | 3.5                      | 3.9         | 36              | 35          | 796          | 547        |
| 15       | 4.8              | 7.0         | 23                | 24          | 4.0             | 4.0        | 27.0             | 32.0        | 5.6                      | 4.6         | 34              | 34          | 558          | 648        |
| 16       | 5.8              | 7.0         | 26                | 23          | 4.0             | 4.1        | 23.0             | 31.0        | 4.0                      | 4.4         | 32              | 36          | 750          | 594        |
| 17       | 3.8              | 6.2         | 18                | 23          | 4.0             | 4.1        | 24.0             | 31.0        | 6.3                      | 5.0         | 33              | 36          | 725          | 674        |
| 18       | 4.0              | 6.7         | 24                | 24          | 4.0             | 4.3        | 28.0             | 32.0        | 7.0                      | 4.8         | 32              | 35          | 760          | 914        |
| 19       | 5.5              | 6.7         | 23                | 22          | 4.0             | 3.9        | 27.0             | 29.0        | 4.9                      | 4.3         | 33              | 37          | 570          | 702        |
| 20       | 6.0              | 7.7         | 24                | 26          | 4.0             | 4.1        | 27.0             | 33.0        | 4.5                      | 4.3         | 32              | 37          | 637          | 628        |
| 21       | 7.0              | 6.7         | 24                | 24          | 4.0             | 4.0        | 28.0             | 31.0        | 4.0                      | 4.6         | 35              | 36          | 535          | 671        |
| 22       | 4.3              | 6.7         | 24                | 20          | 4.2             | 4.0        | 27.0             | 28.0        | 6.3                      | 4.2         | 33              | 33          | 405          | 788        |
| 23       | 5.0              | 5.2         | 22                | 25          | 4.0             | 4.0        | 26.0             | 30.0        | 5.2                      | 5.8         | 35              | 38          | 607          | 543        |
| 24       | 5.3              | 6.5         | 21                | 23          | 4.5             | 3.7        | 26.0             | 32.0        | 4.9                      | 4.9         | 35              | 37          | 589          | 731        |
| Average  | 5.6              | 6.5         | 22.1              | 22.8        | 4.0             | 4.2        | 26.4             | 29.4        | 4.9                      | 4.6         | 33.4            | 36.8        | 665.5        | 670.5      |
| Stan dev | 1.238834188      | 0.969648076 | 2.430184582       | 1.667572218 | 0.29623238      | 0.26043442 | 1.883855898      | 2.145098896 | 0.941175816              | 0.572524392 | 1.31601066      | 1.793203756 | 118.1204249  | 106.217979 |
| T test   | 5.61E-03         |             | 2.45E-01          |             | 8.51E-02        | 0.26043442 | 4.19E-06         |             | 1.62E-01                 |             | 2.05E-09        |             | 8.77E-01     |            |

Trial map #: SV000094  
 Wet Date: 4/22/00  
 Date evald: 6/23/00  
 Location: Green Field  
 Grower: Bassetti  
 Days to Maturity: 66  
 65  
 Maturity Date: 1 MajorCos 5/27/00  
 2 Heritage 6/26/00  
 Intellectual Property Trial Data  
 Comparison of Head Characteristics  
 Ranch: 12  
 Lot: 4

| Sample # | Core length (cm) |            | Heart Length (cm) |             | Core diam. (cm) |            | Head length (cm) |             | Head length:Core Length |             | Frame diam (cm) |             | Head wt. (g) |            |
|----------|------------------|------------|-------------------|-------------|-----------------|------------|------------------|-------------|-------------------------|-------------|-----------------|-------------|--------------|------------|
|          | MajorCos         | Heritage   | MajorCos          | Heritage    | MajorCos        | Heritage   | MajorCos         | Heritage    | MajorCos                | Heritage    | MajorCos        | Heritage    | MajorCos     | Heritage   |
| 1        | 6.7              | 5.2        | 22                | 22          | 3.8             | 4.5        | 27.0             | 26.0        | 4.0                     | 5.0         | 32              | 36          | 867          | 796        |
| 2        | 6.8              | 5.6        | 24                | 22          | 3.9             | 4.0        | 29.0             | 25.0        | 4.3                     | 4.5         | 33              | 35          | 791          | 700        |
| 3        | 7.1              | 6.0        | 22                | 21          | 4.0             | 4.3        | 28.0             | 26.0        | 3.9                     | 4.3         | 36              | 39          | 714          | 617        |
| 4        | 3.7              | 6.7        | 21                | 23          | 3.8             | 4.3        | 29.0             | 30.0        | 7.8                     | 4.5         | 34              | 37          | 627          | 789        |
| 5        | 5.8              | 5.7        | 25                | 22          | 3.7             | 4.5        | 30.0             | 29.0        | 5.2                     | 5.1         | 35              | 41          | 523          | 527        |
| 6        | 5.2              | 8.0        | 21                | 23          | 4.0             | 4.5        | 28.0             | 30.0        | 5.4                     | 3.8         | 36              | 38          | 619          | 690        |
| 7        | 8.0              | 4.5        | 22                | 20          | 3.8             | 4.5        | 27.0             | 27.0        | 3.4                     | 6.0         | 37              | 38          | 631          | 602        |
| 8        | 5.0              | 5.2        | 21                | 21          | 3.8             | 4.3        | 26.0             | 27.0        | 5.2                     | 5.2         | 32              | 37          | 772          | 530        |
| 9        | 6.5              | 6.9        | 21                | 22          | 4.0             | 4.4        | 27.0             | 30.0        | 4.2                     | 4.3         | 33              | 38          | 526          | 729        |
| 10       | 4.5              | 6.8        | 19                | 21          | 4.3             | 4.0        | 26.0             | 28.0        | 5.8                     | 4.1         | 34              | 39          | 539          | 580        |
| 11       | 6.4              | 8.3        | 20                | 24          | 3.8             | 3.8        | 25.0             | 31.0        | 3.9                     | 3.7         | 32              | 39          | 492          | 517        |
| 12       | 6.5              | 6.0        | 22                | 22          | 3.6             | 3.6        | 30.0             | 28.0        | 4.6                     | 4.7         | 33              | 36          | 595          | 801        |
| 13       | 8.6              | 7.7        | 23                | 23          | 4.0             | 4.4        | 32.0             | 30.0        | 3.7                     | 3.9         | 35              | 36          | 599          | 775        |
| 14       | 6.4              | 7.6        | 22                | 23          | 4.0             | 4.3        | 28.0             | 30.0        | 4.4                     | 3.9         | 35              | 35          | 675          | 547        |
| 15       | 6.0              | 7.0        | 22                | 24          | 3.7             | 4.0        | 28.0             | 32.0        | 4.7                     | 4.6         | 35              | 34          | 445          | 648        |
| 16       | 5.6              | 7.0        | 21                | 26          | 3.2             | 4.1        | 27.0             | 31.0        | 4.8                     | 4.4         | 36              | 36          | 438          | 594        |
| 17       | 7.0              | 6.2        | 22                | 23          | 3.8             | 4.1        | 28.0             | 31.0        | 4.0                     | 5.0         | 38              | 36          | 600          | 674        |
| 18       | 8.7              | 6.7        | 22                | 25          | 3.8             | 4.3        | 30.0             | 32.0        | 3.4                     | 4.8         | 39              | 35          | 500          | 914        |
| 19       | 7.3              | 6.7        | 22                | 22          | 4.0             | 3.9        | 27.0             | 29.0        | 3.7                     | 4.3         | 34              | 37          | 444          | 702        |
| 20       | 7.5              | 7.7        | 24                | 26          | 3.7             | 4.1        | 30.0             | 33.0        | 4.0                     | 4.3         | 34              | 37          | 614          | 628        |
| 21       | 5.5              | 6.7        | 20                | 24          | 4.3             | 4.0        | 26.0             | 31.0        | 4.7                     | 4.6         | 35              | 36          | 602          | 671        |
| 22       | 5.0              | 6.7        | 19                | 20          | 4.2             | 4.0        | 27.0             | 28.0        | 5.4                     | 4.2         | 38              | 33          | 553          | 788        |
| 23       | 6.0              | 5.2        | 20                | 25          | 4.1             | 4.0        | 25.0             | 30.0        | 4.2                     | 5.8         | 42              | 38          | 566          | 543        |
| 24       | 3.6              | 6.5        | 17                | 23          | 4.0             | 3.7        | 22.0             | 32.0        | 6.1                     | 4.9         | 37              | 37          | 528          | 731        |
| Average  | 6.2              | 6.5        | 21.4              | 22.8        | 3.9             | 4.2        | 27.6             | 29.4        | 4.6                     | 4.6         | 35.2            | 36.8        | 594.2        | 670.5      |
| Stan dev | 1.34042498       | 0.96964808 | 1.742478661       | 1.667572218 | 0.236482        | 0.26043442 | 2.104171151      | 2.145098896 | 1.00174118              | 0.572524392 | 2.431302508     | 1.793203756 | 109.8179     | 106.217979 |
| T test   | 3.79E-01         |            | 7.59E-03          |             | 6.57E-04        |            | 4.48E-03         |             | 8.75E-01                |             | 1.36E-02        |             | 1.82E-02     |            |

Trial map #: SV000094  
 Wet Date: 4/22/00  
 Date evald: 6/23/00  
 Location: Green Field  
 Grower: Bassetti  
 Comparison of Head Characteristics  
 Ranch: 12  
 Lot: 4  
 Maturity Date: 6/23/00  
 1 TallGuzmaine  
 2 Heritage  
 Days to Maturity  
 62  
 65

| Sample # | Core length (cm) |             | Heart Length (cm) |             | Core diam. (cm) |            | Head length (cm) |             | Head length:Core Length |             | Frame diam (cm) |             | Head wt. (g) |            |
|----------|------------------|-------------|-------------------|-------------|-----------------|------------|------------------|-------------|-------------------------|-------------|-----------------|-------------|--------------|------------|
|          | TallGuzmaine     | Heritage    | TallGuzmaine      | Heritage    | TallGuzmaine    | Heritage   | TallGuzmaine     | Heritage    | TallGuzmaine            | Heritage    | TallGuzmaine    | Heritage    | TallGuzmaine | Heritage   |
| 1        | 4.6              | 5.2         | 22                | 22          | 4.0             | 4.5        | 23.0             | 26.0        | 5.0                     | 5.0         | 33              | 36          | 893          | 796        |
| 2        | 6.0              | 5.6         | 20                | 22          | 3.9             | 4.0        | 26.0             | 25.0        | 4.3                     | 4.3         | 33              | 35          | 642          | 700        |
| 3        | 5.5              | 6.0         | 23                | 21          | 3.8             | 4.3        | 23.0             | 26.0        | 4.2                     | 4.3         | 33              | 39          | 691          | 617        |
| 4        | 5.0              | 6.7         | 24                | 23          | 3.9             | 4.3        | 24.0             | 30.0        | 4.8                     | 4.5         | 34              | 37          | 621          | 789        |
| 5        | 4.7              | 5.7         | 21                | 22          | 3.9             | 4.5        | 25.0             | 29.0        | 5.3                     | 5.1         | 35              | 41          | 644          | 527        |
| 6        | 6.0              | 8.0         | 22                | 23          | 3.0             | 4.5        | 26.0             | 30.0        | 4.3                     | 3.8         | 35              | 38          | 597          | 690        |
| 7        | 5.4              | 4.5         | 22                | 20          | 4.0             | 4.5        | 26.0             | 27.0        | 4.8                     | 6.0         | 31              | 38          | 703          | 602        |
| 8        | 5.2              | 5.2         | 22                | 21          | 3.8             | 4.3        | 26.0             | 27.0        | 5.0                     | 5.2         | 34              | 37          | 851          | 530        |
| 9        | 3.8              | 6.9         | 20                | 22          | 3.7             | 4.4        | 23.0             | 30.0        | 6.1                     | 4.3         | 35              | 38          | 561          | 729        |
| 10       | 5.5              | 6.8         | 18                | 21          | 3.6             | 4.0        | 23.0             | 28.0        | 4.2                     | 4.1         | 36              | 39          | 554          | 580        |
| 11       | 4.2              | 8.3         | 19                | 24          | 3.6             | 3.8        | 24.0             | 31.0        | 5.7                     | 3.7         | 33              | 39          | 774          | 517        |
| 12       | 4.5              | 6.0         | 20                | 22          | 3.7             | 3.6        | 23.0             | 28.0        | 5.1                     | 4.7         | 29              | 36          | 825          | 801        |
| 13       | 5.2              | 7.7         | 21                | 23          | 3.5             | 4.4        | 27.0             | 30.0        | 5.2                     | 3.9         | 35              | 36          | 467          | 775        |
| 14       | 4.5              | 7.6         | 18                | 23          | 3.8             | 4.3        | 25.0             | 30.0        | 5.6                     | 3.9         | 36              | 35          | 796          | 547        |
| 15       | 4.0              | 7.0         | 19                | 24          | 3.8             | 4.0        | 23.0             | 32.0        | 5.8                     | 4.6         | 35              | 34          | 490          | 648        |
| 16       | 5.6              | 7.0         | 22                | 26          | 3.8             | 4.1        | 26.0             | 31.0        | 4.6                     | 4.4         | 34              | 36          | 415          | 594        |
| 17       | 4.5              | 6.2         | 20                | 23          | 4.0             | 4.1        | 23.0             | 31.0        | 5.1                     | 5.0         | 34              | 36          | 600          | 674        |
| 18       | 4.4              | 6.7         | 22                | 25          | 4.0             | 4.3        | 27.0             | 32.0        | 6.1                     | 4.8         | 35              | 35          | 329          | 914        |
| 19       | 4.2              | 6.7         | 23                | 22          | 3.9             | 3.9        | 27.0             | 29.0        | 6.4                     | 4.3         | 30              | 37          | 529          | 702        |
| 20       | 5.0              | 7.7         | 22                | 26          | 4.1             | 4.1        | 25.0             | 33.0        | 5.0                     | 4.3         | 31              | 37          | 753          | 628        |
| 21       | 6.4              | 6.7         | 20                | 24          | 3.9             | 4.0        | 24.0             | 31.0        | 3.8                     | 4.6         | 34              | 36          | 392          | 671        |
| 22       | 4.5              | 6.7         | 20                | 20          | 3.8             | 4.0        | 25.0             | 28.0        | 5.6                     | 4.2         | 34              | 33          | 601          | 788        |
| 23       | 3.8              | 5.2         | 20                | 25          | 3.9             | 4.0        | 24.0             | 30.0        | 6.3                     | 5.8         | 29              | 38          | 620          | 543        |
| 24       | 3.0              | 6.5         | 20                | 23          | 3.5             | 3.7        | 23.0             | 32.0        | 7.7                     | 4.9         | 26              | 37          | 567          | 731        |
| Average  | 4.8              | 6.5         | 20.8              | 22.8        | 3.8             | 4.2        | 24.6             | 29.4        | 5.2                     | 4.6         | 33.1            | 36.8        | 621.5        | 670.5      |
| Stan dev | 0.807202631      | 0.969648076 | 1.578845662       | 1.667572218 | 0.230900882     | 0.26043442 | 1.468880082      | 2.145098896 | 0.876121036             | 0.572524392 | 2.518050776     | 1.793203756 | 146.6216602  | 106.217979 |
| T test   | 3.06E-08         |             | 1.30E-04          |             | 6.23E-06        |            | 9.44E-12         |             | 3.04E-03                |             | 4.43E-07        |             | 1.91E-01     |            |

Trial map #: SV00115  
 Wet Date: 5/4/00  
 Date evald: 7/5/00

Intellectual Property Trial Data  
 Comparison of Head Characteristics  
 Location: Chualar  
 Grower: Franscioni Bros

Ranch: Martin  
 Lot: 5B

Maturity Date: 7/12/00  
 TailGuzmain Heritage

Days to Maturity  
 69  
 69

| Sample # | Core Diameter (cm) |            | Core Length (cm) |           | Heart Length (cm) |          | Head Length (cm) |            | Head length:Core Length |             | Frame diam (cm) |            | Head wt. (g) |            |
|----------|--------------------|------------|------------------|-----------|-------------------|----------|------------------|------------|-------------------------|-------------|-----------------|------------|--------------|------------|
|          | TailGuzmain        | Heritage   | TailGuzmain      | Heritage  | TailGuzmain       | Heritage | TailGuzmain      | Heritage   | TailGuzmain             | Heritage    | TailGuzmain     | Heritage   | TailGuzmain  | Heritage   |
| 1        | 3.7                | 4.5        | 3.8              | 4.0       | 23.0              | 24.0     | 26.0             | 32.0       | 6.8                     | 8.0         | 40              | 38         | 500          | 440        |
| 2        | 3.2                | 3.7        | 6.0              | 8.4       | 20.0              | 29.0     | 27.0             | 33.0       | 4.5                     | 3.9         | 36              | 38         | 486          | 652        |
| 3        | 3.3                | 4.0        | 4.0              | 8.6       | 24.0              | 29.0     | 27.0             | 31.0       | 6.8                     | 3.6         | 40              | 34         | 775          | 492        |
| 4        | 3.5                | 4.3        | 4.6              | 5.5       | 21.0              | 25.0     | 26.0             | 31.0       | 5.7                     | 5.6         | 35              | 42         | 683          | 650        |
| 5        | 4.0                | 3.7        | 5.0              | 6.0       | 22.0              | 26.0     | 27.0             | 30.0       | 5.4                     | 5.0         | 37              | 39         | 382          | 552        |
| 6        | 3.3                | 4.5        | 4.6              | 7.0       | 22.0              | 27.0     | 29.0             | 34.0       | 6.3                     | 4.9         | 38              | 41         | 633          | 417        |
| 7        | 2.7                | 4.1        | 4.3              | 5.5       | 22.0              | 24.0     | 26.0             | 31.0       | 6.0                     | 5.6         | 38              | 40         | 432          | 517        |
| 8        | 3.9                | 4.0        | 4.2              | 8.0       | 22.0              | 27.0     | 26.0             | 31.0       | 6.2                     | 3.9         | 37              | 40         | 541          | 675        |
| 9        | 3.5                | 4.0        | 4.0              | 8.5       | 19.0              | 28.0     | 25.0             | 32.0       | 6.3                     | 3.8         | 39              | 42         | 562          | 492        |
| 10       | 3.5                | 3.5        | 4.1              | 6.0       | 20.0              | 30.0     | 25.0             | 33.0       | 6.1                     | 5.5         | 38              | 40         | 575          | 506        |
| 11       | 3.0                | 3.6        | 3.9              | 6.5       | 18.0              | 29.0     | 26.0             | 31.0       | 6.7                     | 4.8         | 40              | 40         | 579          | 547        |
| 12       | 3.7                | 3.7        | 5.6              | 5.6       | 22.0              | 23.0     | 26.0             | 30.0       | 4.6                     | 5.4         | 40              | 40         | 616          | 539        |
| 13       | 3.2                | 4.1        | 3.0              | 6.5       | 20.0              | 26.0     | 24.0             | 30.0       | 8.0                     | 4.6         | 38              | 43         | 691          | 670        |
| 14       | 3.4                | 3.7        | 4.9              | 7.0       | 22.0              | 29.0     | 29.0             | 33.0       | 5.9                     | 4.7         | 37              | 41         | 496          | 515        |
| 15       | 3.5                | 3.7        | 5.4              | 5.5       | 25.0              | 22.0     | 28.0             | 28.0       | 5.2                     | 5.1         | 35              | 40         | 349          | 541        |
| 16       | 2.9                | 3.7        | 6.4              | 5.0       | 25.0              | 24.0     | 28.0             | 28.0       | 4.4                     | 5.6         | 38              | 42         | 500          | 640        |
| 17       | 2.9                | 4.0        | 5.4              | 5.4       | 22.0              | 26.0     | 26.0             | 30.0       | 4.8                     | 6.1         | 40              | 38         | 463          | 593        |
| 18       | 3.2                | 3.5        | 4.9              | 5.9       | 19.0              | 26.0     | 25.0             | 30.0       | 5.1                     | 5.1         | 39              | 35         | 411          | 666        |
| 19       | 4.0                | 3.4        | 5.7              | 7.0       | 20.0              | 24.0     | 26.0             | 33.0       | 4.6                     | 4.7         | 39              | 42         | 613          | 531        |
| 20       | 3.6                | 3.9        | 3.6              | 6.2       | 18.0              | 27.0     | 26.0             | 34.0       | 7.2                     | 5.5         | 38              | 40         | 510          | 665        |
| 21       | 3.3                | 4.1        | 5.7              | 8.1       | 22.0              | 27.0     | 26.0             | 34.0       | 4.6                     | 4.2         | 33              | 40         | 371          | 509        |
| 22       | 3.6                | 4.0        | 4.7              | 7.0       | 21.0              | 27.0     | 25.0             | 31.0       | 5.3                     | 4.4         | 34              | 39         | 420          | 444        |
| 23       | 4.6                | 3.5        | 2.0              | 6.5       | 24.0              | 26.0     | 26.0             | 31.0       | 13.0                    | 4.8         | 36              | 44         | 506          | 386        |
| 24       | 3.5                | 3.6        | 4.6              | 6.5       | 21.0              | 24.0     | 25.0             | 30.0       | 5.4                     | 4.6         | 37              | 42         | 526          | 624        |
| Average  | 3.5                | 3.9        | 4.6              | 6.5       | 21.4              | 26.2     | 26.3             | 31.4       | 6.0                     | 5.0         | 37.6            | 40.0       | 525.8        | 552.6      |
| Stan dev | 0.41380174         | 0.30739674 | 0.998259355      | 1.1850212 | 1.9541854         | 2.146365 | 1.259745         | 1.71734544 | 1.761928082             | 0.919766353 | 1.97630896      | 2.30311698 | 107.4582494  | 86.8596131 |
| T test   | 3.30E-04           |            | 2.58E-07         |           | 2.20E-10          |          | 1.27E-15         |            | 1.20E-02                |             | 3.10E-04        |            | 3.47E-01     |            |



Trial map #: SV000115  
 Wet Date: 5/4/00  
 Date evald: 7/5/00  
 Intellectual Property Trial Data  
 Comparison of Head Characteristics  
 Location: Chuahar  
 Grower: Fransconi Bros  
 Ranch: Martin  
 Lot: 5B  
 Maturity Date:  
 MajorCos 7/10/00  
 Heritage 7/12/00  
 Days to Maturity  
 67  
 69

| Sample # | Core Diameter (cm) |            | Core Length (cm) |            | Heart Length (cm) |          | Head Length (cm) |            | Head length:Core Length |             | Frame diam (cm) |            | Head wt. (g) |            |
|----------|--------------------|------------|------------------|------------|-------------------|----------|------------------|------------|-------------------------|-------------|-----------------|------------|--------------|------------|
|          | MajorCos           | Heritage   | MajorCos         | Heritage   | MajorCos          | Heritage | MajorCos         | Heritage   | MajorCos                | Heritage    | MajorCos        | Heritage   | MajorCos     | Heritage   |
| 1        | 3.3                | 4.5        | 7.0              | 4.0        | 26.0              | 24.0     | 30.0             | 32.0       | 4.3                     | 8.0         | 40              | 38         | 849          | 440        |
| 2        | 3.5                | 3.7        | 8.1              | 8.4        | 27.0              | 29.0     | 33.0             | 33.0       | 4.1                     | 3.9         | 39              | 38         | 681          | 652        |
| 3        | 3.5                | 4.0        | 7.6              | 8.6        | 26.0              | 29.0     | 32.0             | 31.0       | 4.2                     | 3.6         | 40              | 34         | 501          | 492        |
| 4        | 3.6                | 4.3        | 7.7              | 5.5        | 26.0              | 25.0     | 31.0             | 31.0       | 4.0                     | 5.6         | 41              | 42         | 642          | 650        |
| 5        | 3.9                | 3.7        | 6.6              | 6.0        | 25.0              | 26.0     | 31.0             | 30.0       | 4.7                     | 5.0         | 40              | 39         | 529          | 552        |
| 6        | 3.4                | 4.5        | 10.0             | 7.0        | 28.0              | 27.0     | 34.0             | 34.0       | 3.4                     | 4.9         | 39              | 41         | 744          | 417        |
| 7        | 4.0                | 4.1        | 6.4              | 5.5        | 25.0              | 24.0     | 31.0             | 31.0       | 4.8                     | 5.6         | 42              | 40         | 490          | 517        |
| 8        | 3.6                | 4.0        | 4.9              | 8.0        | 24.0              | 27.0     | 30.0             | 31.0       | 6.1                     | 3.9         | 42              | 40         | 646          | 675        |
| 9        | 3.4                | 4.0        | 4.9              | 8.5        | 23.0              | 28.0     | 29.0             | 32.0       | 4.1                     | 3.8         | 38              | 42         | 541          | 492        |
| 10       | 3.5                | 3.5        | 6.4              | 6.0        | 26.0              | 30.0     | 32.0             | 33.0       | 5.0                     | 5.5         | 37              | 40         | 777          | 506        |
| 11       | 3.7                | 3.6        | 7.0              | 6.5        | 24.0              | 29.0     | 30.0             | 31.0       | 4.3                     | 4.8         | 41              | 40         | 719          | 547        |
| 12       | 3.9                | 3.7        | 6.2              | 5.6        | 24.0              | 23.0     | 32.0             | 30.0       | 5.1                     | 5.4         | 41              | 40         | 565          | 539        |
| 13       | 3.9                | 4.1        | 5.8              | 6.5        | 22.0              | 26.0     | 27.0             | 30.0       | 4.7                     | 4.6         | 42              | 43         | 491          | 670        |
| 14       | 4.1                | 3.7        | 6.7              | 7.0        | 23.0              | 29.0     | 28.0             | 33.0       | 4.2                     | 4.7         | 41              | 41         | 416          | 515        |
| 15       | 4.0                | 3.7        | 5.3              | 5.5        | 24.0              | 22.0     | 30.0             | 28.0       | 5.7                     | 5.1         | 39              | 40         | 699          | 541        |
| 16       | 4.0                | 3.7        | 6.0              | 5.0        | 20.0              | 24.0     | 26.0             | 28.0       | 4.3                     | 5.6         | 40              | 42         | 532          | 640        |
| 17       | 3.2                | 4.0        | 5.7              | 5.4        | 22.0              | 26.0     | 28.0             | 33.0       | 4.9                     | 6.1         | 40              | 38         | 488          | 593        |
| 18       | 3.7                | 3.5        | 7.6              | 5.9        | 26.0              | 26.0     | 31.0             | 30.0       | 4.1                     | 5.1         | 37              | 35         | 791          | 666        |
| 19       | 4.1                | 3.4        | 8.4              | 7.0        | 28.0              | 24.0     | 32.0             | 33.0       | 3.8                     | 4.7         | 38              | 42         | 414          | 531        |
| 20       | 4.0                | 3.9        | 8.0              | 6.2        | 28.0              | 27.0     | 32.0             | 34.0       | 4.0                     | 5.5         | 37              | 40         | 701          | 665        |
| 21       | 3.6                | 4.1        | 6.9              | 8.1        | 29.0              | 27.0     | 31.0             | 34.0       | 4.5                     | 4.2         | 42              | 40         | 555          | 509        |
| 22       | 3.1                | 4.0        | 7.3              | 7.0        | 26.0              | 27.0     | 31.0             | 31.0       | 4.2                     | 4.4         | 44              | 39         | 600          | 444        |
| 23       | 3.6                | 3.5        | 6.4              | 6.5        | 21.0              | 26.0     | 24.0             | 31.0       | 3.8                     | 4.8         | 40              | 44         | 469          | 386        |
| 24       | 3.8                | 3.6        | 6.2              | 6.5        | 26.0              | 24.0     | 30.0             | 30.0       | 4.8                     | 4.6         | 38              | 42         | 409          | 624        |
| Average  | 3.7                | 3.9        | 6.9              | 6.5        | 25.0              | 26.2     | 30.2             | 31.4       | 4.5                     | 5.0         | 39.9            | 40.0       | 593.7        | 552.6      |
| Stan dev | 0.288424           | 0.30739674 | 1.106523843      | 1.18502125 | 2.33087344        | 2.146365 | 2.283764         | 1.71734544 | 0.613585565             | 0.919766353 | 1.83938092      | 2.30311698 | 128.3705503  | 86.8596131 |
| T test   | 3.85E-02           |            | 2.62E-01         |            | 5.95E-02          |          | 4.39E-02         |            | 2.95E-02                |             | 8.90E-01        |            | 2.01E-01     |            |

Trial map #: SV00115  
 Wet Date: 5/4/00  
 Date evald: 7/5/00

Intellectual Property Trial Data  
 Comparison of Head Characteristics  
 Location: Chualar  
 Grower: Transconi Bros

Ranch: Martin  
 Lot: 5B

Maturity Date:  
 GreenTowers 7/12/00  
 Heritage 7/12/00

Days to Maturity  
 69  
 69

| Sample # | Core Diameter (cm) |            | Core Length (cm) |           | Heart Length (cm) |          | Head Length (cm) |            | Head length:Core Length |             | Frame diam (cm) |            | Head wt. (g) |            |
|----------|--------------------|------------|------------------|-----------|-------------------|----------|------------------|------------|-------------------------|-------------|-----------------|------------|--------------|------------|
|          | GreenTowers        | Heritage   | GreenTowers      | Heritage  | GreenTowers       | Heritage | GreenTowers      | Heritage   | GreenTowers             | Heritage    | GreenTowers     | Heritage   | GreenTowers  | Heritage   |
| 1        | 3.4                | 4.5        | 4.0              | 4.0       | 23.0              | 24.0     | 26.0             | 32.0       | 6.5                     | 8.0         | 38              | 38         | 327          | 440        |
| 2        | 3.7                | 3.7        | 3.5              | 8.4       | 19.0              | 29.0     | 23.0             | 33.0       | 6.6                     | 3.9         | 37              | 38         | 439          | 652        |
| 3        | 3.5                | 4.0        | 4.3              | 8.6       | 20.0              | 29.0     | 23.0             | 31.0       | 5.3                     | 3.6         | 38              | 34         | 366          | 492        |
| 4        | 3.7                | 4.3        | 4.8              | 5.5       | 22.0              | 25.0     | 26.0             | 31.0       | 5.4                     | 5.6         | 38              | 42         | 395          | 650        |
| 5        | 3.2                | 3.7        | 4.5              | 6.0       | 21.0              | 26.0     | 26.0             | 30.0       | 5.8                     | 5.0         | 39              | 39         | 360          | 552        |
| 6        | 3.2                | 4.5        | 3.0              | 7.0       | 23.0              | 27.0     | 27.0             | 34.0       | 9.0                     | 4.9         | 38              | 41         | 442          | 417        |
| 7        | 3.4                | 4.1        | 5.6              | 5.5       | 23.0              | 24.0     | 28.0             | 31.0       | 5.0                     | 5.6         | 39              | 40         | 560          | 517        |
| 8        | 3.6                | 4.0        | 4.2              | 8.0       | 24.0              | 27.0     | 27.0             | 31.0       | 6.4                     | 3.9         | 36              | 40         | 274          | 675        |
| 9        | 3.2                | 4.0        | 3.7              | 8.5       | 20.0              | 28.0     | 27.0             | 32.0       | 7.3                     | 3.8         | 37              | 42         | 537          | 492        |
| 10       | 3.2                | 3.5        | 4.6              | 6.0       | 23.0              | 30.0     | 26.0             | 33.0       | 5.7                     | 5.5         | 37              | 40         | 355          | 506        |
| 11       | 3.5                | 3.6        | 5.0              | 6.5       | 25.0              | 29.0     | 28.0             | 31.0       | 4.9                     | 5.4         | 39              | 40         | 378          | 547        |
| 12       | 3.6                | 3.7        | 5.7              | 5.6       | 23.0              | 23.0     | 28.0             | 30.0       | 6.0                     | 4.6         | 41              | 40         | 400          | 670        |
| 13       | 3.7                | 4.1        | 4.5              | 6.5       | 22.0              | 26.0     | 27.0             | 30.0       | 6.0                     | 4.7         | 41              | 41         | 402          | 515        |
| 14       | 3.6                | 3.7        | 4.3              | 7.0       | 29.0              | 29.0     | 26.0             | 33.0       | 5.7                     | 5.1         | 40              | 40         | 438          | 541        |
| 15       | 3.8                | 3.7        | 4.4              | 5.5       | 24.0              | 22.0     | 25.0             | 28.0       | 6.0                     | 5.6         | 43              | 42         | 395          | 640        |
| 16       | 3.2                | 3.7        | 4.7              | 5.0       | 22.0              | 24.0     | 28.0             | 28.0       | 6.4                     | 6.1         | 39              | 38         | 367          | 593        |
| 17       | 3.4                | 4.0        | 4.2              | 5.4       | 23.0              | 26.0     | 27.0             | 33.0       | 5.3                     | 5.1         | 38              | 35         | 409          | 666        |
| 18       | 3.2                | 3.5        | 4.5              | 5.9       | 24.0              | 26.0     | 24.0             | 30.0       | 5.5                     | 4.7         | 41              | 42         | 496          | 531        |
| 19       | 3.3                | 3.4        | 4.4              | 7.0       | 22.0              | 24.0     | 24.0             | 33.0       | 5.5                     | 5.5         | 38              | 40         | 379          | 665        |
| 20       | 3.4                | 3.9        | 4.7              | 6.2       | 21.0              | 27.0     | 26.0             | 34.0       | 6.4                     | 4.2         | 36              | 40         | 404          | 509        |
| 21       | 3.2                | 4.1        | 4.2              | 8.1       | 20.0              | 27.0     | 27.0             | 34.0       | 6.2                     | 4.4         | 37              | 39         | 366          | 444        |
| 22       | 3.4                | 4.0        | 4.5              | 7.0       | 23.0              | 27.0     | 28.0             | 31.0       | 5.2                     | 4.8         | 37              | 44         | 342          | 386        |
| 23       | 3.5                | 3.5        | 4.4              | 6.5       | 25.0              | 26.0     | 23.0             | 31.0       | 5.8                     | 4.6         | 37              | 42         | 386          | 624        |
| 24       | 3.6                | 3.6        | 4.3              | 6.5       | 22.0              | 24.0     | 25.0             | 30.0       | 6.0                     | 5.0         | 38.5            | 40.0       | 398.8        | 552.6      |
| Average  | 3.4                | 3.9        | 4.4              | 6.5       | 22.6              | 26.2     | 26.0             | 31.4       | 0.855418526             | 0.919766353 | 1.81728815      | 2.30311698 | 63.67784351  | 86.8596131 |
| Stan dev | 0.19518664         | 0.30739674 | 0.570024154      | 1.1850212 | 2.0812308         | 2.146365 | 1.654484         | 1.71734544 | 2.70E-04                |             | 1.88E-02        |            |              |            |
| T test   | 6.31E-07           |            | 5.99E-10         |           | 4.51E-07          |          | 1.58E-14         |            |                         |             |                 |            |              |            |

## **Trialing Protocol for Intellectual Property Protection.**

### **I. Set Up**

1. Parental lines and competing varieties are identified.
2. Primary slots are identified.
3. Necessary accession lines are located and purchased/received from seed dealers or growers.
4. All varieties are assigned a number to maintain integrity, and anonymity.
5. Trials are set up in the Progeny warehouse with all necessary varieties. Variety arrangement for trial is diagramed.

### **II. Planting**

1. Commercial plantings are located by contacting commercial growers during the planting slot recommended for the variety.
2. Field is located during commercial planting, and the necessary rows and area is marked off by a Progeny employee with proper training.
3. Varieties are planted according to diagram, in 100 ft. ranges.
4. All varieties are planted in same manner, to mimic the planting of the commercial variety as closely as possible.
5. A trial map is drawn diagramming the trial, the trial location in the field, and directions to the field.

### **III. Maintenance**

1. All varieties are treated identically. The grower handles all watering, fertilization, and pest control, as if it was no different from the commercial field it is grown with.
2. Thinning of the trial is done by a crew contracted by the commercial grower.



#### IV. Evaluation

1. Evaluations are done as near to the time of the commercial harvest as possible by knowledgeable Progeny employees.
2. The evaluation is conducted "blindly". The evaluator(s) do not have the key to the trial at the time of evaluation.
3. 24 heads of each variety are evaluated.
  - a. The frame diameter of 24 random plants are measured to the nearest cm.
  - b. 24 mature heads of each variety are cut to the cap leaf.
  - c. The heads are carried to an adequate work station
  - d. The following measurements are then conducted and recorded:
    1. Each head is weighed to the nearest gram.
    2. The core diameter of each head is measured to the nearest mm.
    3. The heads are then sliced in to halves, discarding 1 half.
    4. The core lengths (from the cut stem to the core tip) are measured to the nearest mm.
    5. The head length (from the cut stem to the cap leaf) is measured to the nearest mm.
    6. The head diameter (at its widest point) is measured to the nearest mm.
    7. The ideal maturity or harvest date is then estimated based on the solidity of the head, the core length and any other physiological characteristics present.
    8. The leaf color is documented using the Munsell Color Charts for Plant Tissue.
  - e. From these measurements, we then use an Excell program to calculate the averages, the standard deviations and the T-Tests for the compared varieties.



## **Clarification of Terms and Measurements Used in the Application**

### **Further explanation of the term smoother plant:**

In referring to a plant as 'smoother', we are explaining the degree of savoydness or blistering that the leaf has. A 'smoother' plant would have a less savoyed or blistered leaf surface than a heavily savoyed or blistered plant.

### **Definition of the plant characteristics as measured in our trials:**

1. The romaine plant is cut according to fresh market standards, at market maturity. The plant is weighed, the core diameter is measured, and then the plant is sliced vertically.
2. We define the heart as the part of the plant enclosed by the outer most cupping leaf. This area is the densest part of the plant and the color varies from white to yellow to light green as the leafs mature.
3. For our evaluation purposes the heart length is measured from the base of the cut plant stem (core) to the tip of the outer most cupping leaf that forms the heart.
4. The stem length is measured from the base of the cut stem to the stem tip, at market maturity.
5. Head height is measured vertically from the base of the cut stem to the tip of the margin of the longest leaf.
6. Head height differs from plant height. Plant height would be the total plant height of the growing plant from the top of the bed to the highest part of the plant. Head height is a measurement of the plant height once cut to market standards.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

## EXHIBIT E

## STATEMENT OF THE BASIS OF OWNERSHIP

|  |  |   |   |
|--|--|---|---|
| 1. NAME OF APPLICANT(S)<br><br><b>PROGENY ADVANCED GENETICS, INC.</b>  |  | 2. TEMPORARY DESIGNATION<br>OR EXPERIMENTAL NUMBER<br><br><b>PX 313</b> | 3. VARIETY NAME<br><br><b>HERITAGE</b>                |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)<br><br><b>1536 B MOFFETT STREET<br/>SALINAS CALIFORNIA 93905</b>   |  | 5. TELEPHONE (include area code)<br><br><b>831-751-6030</b>             | 6. FAX (include area code)<br><br><b>831-751-6032</b> |
|  |  | 7. PVPO NUMBER<br><b>200100210</b>                                      |   |
| 8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                          |  |   |   |
| 9. Is the applicant (individual or company) a U.S. national or U.S. based company?<br>If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                      |  |   |   |
| 10. Is the applicant the original owner? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, please answer one of the following:  |  |   |   |
| a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?<br><input type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country   |  |   |   |
| b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?<br><input type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country |  |   |   |
| 11. Additional explanation on ownership (if needed, use reverse for extra space):  |  |   |   |

## PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.